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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,666	02/20/2004	Youhei Toyoshima	44471/297709	7282

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JOHN S. PRATT, ESQ  
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ATLANTA, GA 30309

EXAMINER
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LUKS, JEREMY AUSTIN

ART UNIT	PAPER NUMBER
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2837

MAIL DATE	DELIVERY MODE
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12/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/783,666	<b>Applicant(s)</b> TOYOSHIMA, YOUHEI	
	<b>Examiner</b> Jeremy Luks	<b>Art Unit</b> 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7,8,10,11,13,14 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7,8,10,11,13,14 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 3, 4, 8, 10, 11, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson (2001/0045322). Nilsson teaches a muffler body (Figure 1, #1) defining an expansion room (Examiner considers the muffler interior including chamber #3 and other unlabeled chambers comprising absorbing material #8 to be an expansion room. Also see Page 2, [0023] describing the possibility of removing absorbing material #8 to surround the pipe with air); an upstream pipe (2), an end portion thereof is opened in the expansion room (interior of #1, portion #3; Page 2, [0023]); a downstream pipe (6), a first end portion (5 – right end of pipe #5 open to chamber #3) thereof is opened in expansion room (interior of #1, portion #3; Page 2, [0023]), and a second end portion (7) thereof is opened outside of the expansion room (interior of #1, portion #3; Page 2, [0023]); and an opening (holes #9) formed in a side face of the downstream pipe (6) in the expansion room (interior of #1, portion #3; Page 2, [0023]), the opening (holes #9) formed in a belt-like elongated area (6a) extending substantially along a main axis of the downstream pipe (6) and comprising a plurality of small holes (9) substantially arranged at regular intervals in said main axis; wherein the

end portion (end near chamber #3) of the upstream pipe (2) and the first end portion (5 – right end of pipe #5 open to chamber #3) of the downstream pipe (6) are opened towards the same direction; wherein the opening (holes #9) in the downstream pipe (6) is positioned in an axial direction between the end portion (opening to chamber #3) of the upstream pipe (2) and the first end portion (5 – right end of pipe #5 open to chamber #3) of the downstream pipe (6); and wherein the elongated area (6a) is directionally stretched in a circumferential direction of the downstream pipe (6) and is evenly distributed in a substantial main axis direction of the downstream pipe (6) (Page 3, [0032]). Nilsson fails to teach wherein separate pipe portions (4, 5, 6 and 7) described above are made from one integral pipe. However, it would have been an obvious matter of design choice to provide a one piece pipe, not formed of separate pipe portions, since it has been held that forming separate structural elements into a one piece construction involves only routine skill in the art. In re Larson, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965).

Regarding claims 8, 10, 11 and 13, Nilsson teaches the opening has an opening ratio in a range from 10% to 20%. Nilsson fails to teach the opening has an opening ratio in a range from 20% to 40%. However, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have an opening ratio in a range from 20% to 40%, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233.

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson (2001/0045322) in view of Miles (2,095,999). Nilsson is relied upon for the reasons and disclosures set forth above. Nilsson fails to teach wherein the opening comprises a slit formed in the elongated area. Miles teaches a slit (Figure 1, #24) formed in an elongated area (Col. 2, Lines 15-17). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Nilsson, with the apparatus of Miles to change the acoustic boundary conditions.

3. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsson (2001/0045322) in view of Macaluso (4,735,283). Nilsson is relied upon for the reasons and disclosures set forth above. Nilsson further teaches an expansion room (Examiner considers the muffler interior including chamber #3 and other unlabeled chambers comprising absorbing material #8 to be an expansion room. Also see Page 2, [0023] describing the possibility of removing absorbing material #8 to surround the pipe with air) including a first chamber (3). While Nilsson appears to show the remaining limitations of the claim, they are not detailed in the drawings although obvious to one of ordinary skill in the art. Therefor, Nilsson fails to expressly teach wherein the expansion room of the muffler body is partitioned into a first expansion chamber, a second expansion chamber and a third expansion chamber by a first baffle plate and a second baffle plate. Macaluso teaches an expansion room (Figure 1, interior muffler #1) of a muffler body (1) is partitioned into a first expansion chamber (19), a second expansion chamber (17) and a third expansion chamber (15) by a first baffle plate (13) and a second baffle plate (11) (Col. 1, Line 51 – Col. 2, Line 36). It would have been

obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Nilsson, with the apparatus of Macaluso to support the pipes and provide sound reduction, as is well known in the art when constructing mufflers.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1, 3, 4, 7, 8, 10, 11, 13, 14 and 17 have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers the obvious combination of Nilsson, Miles and Macaluso to teach all of the limitations as claimed by Applicant.

5. With respect to Applicants arguments regarding the orientation of the perforated section with respect to the upstream pipe and first end of the downstream pipe, the Examiner disagrees. Perforated section 6a is clearly positioned in an axial direction of downstream pipe (6), and is further located between the end portion of the upstream pipe (2, end opening into chamber #3) and the first end portion (5 – right end of pipe #5 open to chamber #3) of the downstream pipe (6). While the Examiner understands Applicant's position on this limitation, the current claim language allows for the Examiner's interpretation. It has not been established that the perforated section is in only the portion of axial direction that extends or has a beginning and end point located between the end portions of the upstream and downstream pipes, but just that the perforated section is in an axial direction (on the downstream pipe) and between the respective end portions of the pipes.

6. Regarding the perforated area being circumferentially stretched, Nilson describes that the perforations can oriented around the entire circumference or just a portion

(0032). The Examiner considers this teaching to encompass stretching the area in a circumferential direction. Applicant has not provided any evidence or reasoning as to how the Examiner's interpretation was incorrect. Further, a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). Additionally, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art. In re Aller, 105 USPQ 233.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number:  
10/783,666  
Art Unit: 2837

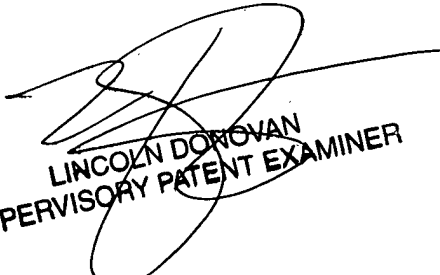
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks  
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Art Unit 2837  
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LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER